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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,655	12/14/2001	Naoki Nishita	IGARA29.001AUS	2658

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EXAMINER

LIN, TINA M

ART UNIT PAPER NUMBER

2874

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/024,655

Applicant(s)

NISHITA, NAOKI

Examiner

Tina M Lin

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Objections

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the mailing or post office address of each inventor. A mailing or post office address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The mailing or post office address should include the ZIP Code designation. The mailing or post office address may be provided in an application data sheet or a supplemental oath or declaration. See 37 CFR 1.63(c) and 37 CFR 1.76.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication US2002/0102073 A1 to Shirakawa and further in view of U.S. Patent Application Publication US2002/0197023 A1 to Serizawa. Shirakawa discloses an optical connector with a receptacle connector, a plug connector fitted inside the receptacle connector and a light emitting diode. Additionally, Shirakawa discloses a light emitting diode and a light-receiving element to be arranged side by side that the first optical fiber is connected to the light

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emitting diode and the second optical fiber is connected to the light-receiving element. But Shirakawa fails to specifically disclose the optical fiber to be arranged so that the end face of the fiber is positioned deeper than the connecting face but, from the figure in the patent application, figure 14 specifically and figures 1 and 16, it can be observed that the end face of the fiber is positioned deeper than the connecting face from the position of where the locking arm locks into place with the receptacle. Shirakawa also fails to disclose a convergent lens to converge the light emitted by the light emitting diode for the purpose of creating a smaller numerical aperture for the light emitting diode than the optical fiber. However, Serizawa does disclose an optical connector with a lens in a sleeve for the purpose of altering the numerical aperture in the sleeve. Serizawa however, also discloses the alteration of the numerical aperture to cause the numerical aperture of the sleeve to be larger than the numerical aperture of the fiber. However, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used a lens that altered the numerical aperture of the light-emitting element in order to obtain the necessary values for the purpose of the optical connector.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication US2002/0102073 A1 to Shirakawa in view of U.S. Patent Application Publication US2002/0197023 A1 to Serizawa as applied to claim 1 above, and further in view of U.S. Patent 5,923,805 to Anderson et al. Shirakawa and Serizawa disclose all discussed above, but fail to mention a plastic optical fiber having a diameter not less than 0.5 mm. However, Anderson et al. does disclose an optical connector that uses a plastic optical fiber in the connector with a diameter that exceeds 300 μm , which is equivalent to 0.3mm. Therefore, it

inadvertently

would have been obvious at the time the invention was made to a person having ordinary skill in the art to have used a plastic optical fiber with a diameter not less than 0.5mm.

The documents submitted by applicant in the Information Disclosure Statement have been considered and made of record. Note attached copy of form PTO-1449.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References D-J all discuss different types of optical connectors that connect to other optical devices as well as optical fibers and different methods of connecting as well.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tina M Lin whose telephone number is (703) 305-1959. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (703) 308-4819. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

TML *TML*
April 4, 2003

John D. Lee
John D. Lee
Primary Examiner